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PATENT
Docket No. 1082-586

8/22/02
BC

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

HAMILTON

Entitled: "CRYSTALLIZATION OF 2,4,6,8,10,12-HEXANITRO-2,4,6,8,10,12-HEXAAZATETRACYCLO[0.0.0^{5,9}0^{3,11}]-DODECANE"

Serial No. Not Yet Assigned

Filed: January 9, 2002 (herewith)

Group Art Unit: Unknown

Examiner: Unknown

Assistant Commissioner
for Patents
U.S. Patent and Trademark Office
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Attached is a Form PTO-1449 listing the enclosed documents.

Return of a copy of the herewith Form PTO-1449 with the Examiner's initials in the left column per MPEP 609 are earnestly solicited.

The Examiner's attention is also directed to the following co-pending applications:

BC USSN 10/000,244 to Hatch (Our docket 1082-121); and

USSN 09/972,360 to Hamilton (Our docket 1082-142).

A copy of each of these applications has been furnished herewith. The Examiner is requested to initial this IDS letter next to the above-listed applications, and to return the same to Applicant per MPEP 609.

This Information Disclosure Statement has been filed within three months of the application filing date. Thus, no fee is required.

This Information Disclosure Statement is intended to be in full compliance with the rules, but should the Examiner find any part of its required content to have been omitted, prompt notice to that effect is earnestly solicited, along with additional time under Rule 97(f), to enable Applicant to comply fully.

Consideration of the foregoing and enclosures plus the return of a copy of the herewith Form PTO-1449 with the Examiner's initials in the left column per MPEP 609 are earnestly solicited.

The purpose of this Statement is also to call the Examiner's attention to certain activities that occurred during and subsequent to development of the invention covered by the above-identified application. Applicants do not believe these activities affect the patentability of any of the claims of the above-identified application.

I. SUMMARY OF THE INVENTION

In a preferred embodiment, the invention relates to the crystallization of 2,4,6,8,10,12-hexanitro-2,4,6,8,10,12-hexaazatetracyclo[5.5.0.$0^{5,9}0^{3,11}$]-dodecane (CL-20 or HNIW) into its ε-polymorph. According to aspects of the invention, the crystallization method comprises preparing a dry CL-20 solvent solution containing an amount of CL-20 dissolved in a solvent. The dry solvent solution is added to a crystallizer containing a CL-20 non-solvent and optionally CL-20 seed crystals to

cause precipitation of epsilon polymorph CL-20 crystals by an inverse precipitation technique. The precipitated epsilon polymorph CL-20 crystals are separated from the non-solvent and the solvent.

II. ACTIVITIES PRIOR TO JANUARY 9, 2001

Development of the invention took place under Government contract N00174-99-C-0030[1] awarded by the Indian Head Division of the Naval Surface Warfare Center (hereinafter "NSWC") to the predecessor entity of the assignee in interest (hereinafter "Thiokol Propulsion"[2]). The contract was entered into on November 4, 1998, and is on-going.

The contract called for a three-task effort. The first task was to involve historical data analysis, diverse sample preparation, small scale characterization, and alternative characterization test evaluation. In the scope of this first task, the contract stated that "CL-20 lots will be prepared by numerous methods with differing particle shapes processed by various synthesis and crystallization methods." The second task was to investigate alternative crystallization techniques and called for "[l]aboratory examination [to] be conducted of alternat[iv]e crystallization techniques, which show promise in reducing sensitivity and controlling particle size to an intermediate range." The third task was directed to demonstrating consistent application of the methods developed in Tasks 1 and 2 by pilot plant verification.

On or about June 19, 2000, certain aspects of the invention were disclosed to the NSWC in a report. A copy of a report of this disclosure is attached as Exhibit 2. However, the report did not disclose the complete invention. For example, at the

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1 A copy of the Statement of Work of the Contract is attached hereto as Exhibit 1.

2 Thiokol Propulsion was a division of Cordant Technologies Corp. On April 20, 2001, Cordant Technologies Inc. was restructured and again changed its name to Thiokol Propulsion Corp. Shortly thereafter, Thiokol Propulsion Corp. was acquired by Alliant Techsystems Inc.

time the inventor had not yet conceived of the step of drying the wet CL-20 solvent solution.

No further disclosures were made to NSWC prior to the critical date, and the complete invention was not made until after the critical date.

III. NONE OF THE ACTIVITIES OCCURING BEFORE THE CRITICAL DATE TRIGGERRED A BAR UNDER 35 U.S.C. § 102(b)

Applicants submit that there are several reasons why the claims of the present application are not rendered unpatentable by 35 U.S.C. § 102(b). First, in order to constitute a bar, the complete invention claimed must have been embodied in or obvious in view of the thing publicly disclosed, sold or offered for sale. *See, e.g., King Instrument Corp. v. Otari Corp.*, 226 USPQ 402 (Fed. Cir. 1985). As mentioned above, the report presented to the NSWC prior to the critical date did not comprise the step of drying the wet CL-20 solvent solution or preparing dry CL-20 solvent solution prior to inverse precipitation, as set forth in the claims.

Second, it is well settled that a use of sale of an invention is experimental, and therefore not barring under 35 U.S.C. § 102(b), if it represents a bona fide effort to perfect the invention or to ascertain whether it will work for its intended purpose. *LaBounty Mfg., Inc. v. United States Int' Trade Comm'n*, 22 USPQ2d 1025, 1029 (Fed. Cir. 1992). Here, the work performed by Thiokol Propulsion was at its experimental stage. The language of the contract between Thiokol Propulsion and NSWC states that Thiokol Propulsion was to conduct "laboratory examination" and "laboratory scale" investigations of alternative crystallization techniques for determining the sensitivity and particle size of CL-20 made by these techniques. Thus, at the time NSWC received the report Thiokol Propulsion was merely conducting research and development on candidate techniques for further testing and development.

For these reasons, the invention was not barred within the meaning of 35 U.S.C. § 102(b).

This Information Disclosure Statement is intended to be in full compliance with the rules, but should the Examiner find any part of its required content to have been omitted, prompt notice to that effect is earnestly solicited, along with additional time under Rule 97(f) to enable Applicant to comply fully.

Favorable consideration of the foregoing and early and favorable action on the merits are respectfully requested.

Respectfully submitted,

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Date of Deposit January 9, 2002
I hereby certify that the attached application and other attachments are being deposited with the U.S. Postal Service "Express Mail Post Office to Addressee" service under 37 C.F.R.§ 1.10 on the date indicated above and is addressed, BOX PATENT APPLICATION, Assistant Commissioner for Patents, U.S. Patent and Trademark Office, Washington, D.C. 20231.

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